

ABSTRACT

A device includes an inlet for receipt of a sample. A first chamber is coupled to the inlet and includes at least one affinity region. A second chamber is disposed adjacent to the first chamber. The first chamber and the second chamber share a common intermediate member, the intermediate member having at least one via formed in the common intermediate member. The second chamber includes an assay chip comprising an array of addressable electrodes. An outlet is coupled to the second chamber. The device may be used to selectively amplify and elute nucleic acids for subsequent detection and analysis.